

highly conserved 111 bps at the 3'-terminal sequence observed among these Thai DEN-3 viruses suggests that it may represent a functional role of the dengue viral 3'-NCR where all or most of the important elements in viral translation, replication and assembly are concentrated. However, this highly conserved 111 bps at the 3'-terminal may not involve the viral pathogenicity as well as severity since the same sequence was existed in the genomes of all these Thai DEN-3 viruses with different severity.

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IDENTIFICATION OF CONCURRENT INFECTIONS BY MULTIPLE DENGUE VIRUS SEROTYPES IN THAI CHILDREN

Zhang C, Chinnawirotpisan P, Klungthong C, Thirawuth V, Narupiti S and Mammen MP Jr

Concurrent infection with more than one dengue virus (DENV) serotype has been reported from Puerto Rico, New Caledonia, Taiwan and Brazil. We provide, to our knowledge, the first case report in the medical literature of a concurrent infection with three dengue virus serotypes (DENV-1/DENV-2/DENV-3). In addition, the first report of dual dengue virus infections occurring in Thailand (DENV-1/DENV-3 or DENV-2/DENV-4). Serotype identification was determined from serum by reverse transcriptase-polymerase chain reaction (RT-PCR) and further confirmed by sequence analysis of each amplified PCR product. Phylogenetic analyses of the amplified DNA fragments further support concurrent infections by two or three dengue virus serotypes. Our report suggests molecular diagnostic tests (RT-PCR) supporting dengue virus surveillance must be designed to adequate sensitivity to detect the presence of multiple dengue virus serotypes in a single physiologic sample.

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IDENTIFICATION OF CONCURRENT INFECTIONS BY TWO OR THREE DENGUE VIRUS SEROTYPES IN THAI CHILDREN

Zhang C, Chinnawirotpisan P, Klungthong C, Thirawuth V, Narupiti S and Mammen MP Jr

Concurrent infections with two dengue virus (DENV) serotypes in the same patient have been reported previously in Puerto Rico, New Caledonia, Taiwan and Brazil. We provide, to our knowledge, the first report of a case of dengue fever associated with viremia with concurrent infection in the same individual by three dengue virus serotypes (DENV-1/DENV-2/DENV-3). Additionally, we provide, to our knowledge, the first report of concurrent infection by two dengue virus serotypes (DENV-1/DENV-3 or DENV-2/DENV-4) in Thailand. Serotype identification was determined directly from serum by reverse transcriptase-polymerase chain reaction (RT-